DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

2A10 Revision 23 LAVIA S.A.

PA-25 PA-25-235 PA-25-260

November 30, 2000

TYPE CERTIFICATE DATA SHEET 2A10

This data sheet which is a part of Type Certificate No. 2A10 prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Civil Air Regulations and Federal Aviation Regulations.

Type Certificate Holder LATINOAMERICANA DE AVIACIÓN (LAVIA) S.A.

Viamonte 824, Piso 2 (1053) Capital Federal Republica Argentina

Type Certificate Ownership Record The New Piper Aircraft, Inc. transferred ownership of TC 2A10 to LAVIA SA on April

15, 1998 (TC reissued November 30, 2000)

I. Model PA-25, 1 PCLM (Restricted Category Only), Approved May 20, 1959.

Engine Lycoming O-320, O-320-A1A, O-320-A2A with carburetor setting 10-3678-11 or

Lycoming O-320-A2B with carburetor setting 10-3678-32

<u>Fuel</u> 80/87 minimum grade aviation gasoline

Engine limits For all operations, 2700 r.p.m. (150 hp)

Propeller and Propeller limits McCauley 1A170-GM or Sensenich M74DM

Static r.p.m. at maximum permissible throttle setting: Not over 2575 r.p.m., not under 2475 r.p.m.

No additional tolerance permitted.

Diameter: Not over 74 inches, not under 72.5 inches

Spinner required: Piper Drawing No. 14422

Airspeed Limits Never exceed 136 mph (118 knots) V_{ne} (CAS) V_{no} Maximum structural cruising 108 mph (94 knots) V_{p} 107.5 mph Maneuvering (93 knots) V_{fe} Flaps Extended 95 mph (82 knots)

<u>Center of Gravity Range</u> (+11.7) to (+16.5) at 2300 lb.

(+10.0) to (+16.5) at 1600 lb. or less

Straight line variation between points given.

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Empty Weight

Center of Gravity Range None

<u>Datum</u> Leading edge of wing

<u>Leveling Means</u> Top longerons in cockpit bay

Maximum Weight 2300 lb.

<u>No. of Seats</u> 1 at (+59)

Maximum Cargo 800 lb. at (+14)

Fuel Capacity 40 gallons at (-14.9) (one fuselage tank)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (-47) (6 quarts usable)

See NOTE 1 for data on system oil.

Control Surface Movements Wing Flaps Down 57°

Aileron Up 23° Down 23° Elevator Up 28° Down 15° Rudder Right 25° Left 25°

Manufacturer's Serial Numbers 25-1 through 25-731

II. - Model PA-25-235, 1 PCLM (Restricted Category Only), Approved March 14, 1962.

Engine Lycoming O-540-B2B5 or O-540-B2C5 with carburetor setting #10-4404-1

<u>Fuel</u> 80/87 minimum grade aviation gasoline

Engine limits For all operations, 2575 r.p.m. (235 hp)

Propeller and Propeller Limits

 McCauley 1A200-FA (Eligible on Aircraft S/N 25-02; 25-2000 through 25-5521; and 25-7305522 through 25-8156024 produced by Piper Aircraft; LA-235-99502 and up produced by LAVIA S.A.):

Static r.p.m. at maximum permissible throttle setting:

Not over 2350 r.p.m., not under 2250 r.p.m.

No additional tolerance permitted

Diameter: Not over 84 inches, not under 82.3 inches Spinner required: Piper Drawing No. 64336

2. McCauley 1P235-AFA (Eligible on S/N 25-02, and 25-2000

through 25-4171):

Static r.p.m. at maximum permissible throttle setting: Not over 2500 r.p.m., not under 2400 r.p.m.

No additional tolerance permitted

Diameter: Not over 84 inches, not under 82.3 inches Spinner required: Piper Drawing No. 14422

See NOTE 6 for aircraft climb performance related to each propeller.

<u>Airspeed Limits</u> V_{ne} Never exceed 156 mph (135 knots)

(CAS) V_{no} Maximum structural cruising 124 mph (108 knots)

 V_p Maneuvering 120 mph (104 knots) V_{fe} Flaps Extended 109 mph (95 knots)

Center of Gravity Range (+88.4) to (+92.5) at 2900 lb.

(+85.6) to (+92.5) at 1793 lb. or less Straight line variation between points given.

Empty Weight

Center of Gravity Range None

Datum 78 inches forward of leading edge of wing

<u>Leveling Means</u> Top longerons in cockpit bay

Maximum Weight 2900 lb.

<u>No. of Seats</u> 1 at (+135)

Maximum Cargo 1200 lb. at (+93)

Fuel Capacity S/N 25-02, and 25-2000 through 25-3384:

42 gallons at (+63) (one fuselage tank)

S/N 25-3385 through 25-5521, and 25-7305522 through 25-7405572 produced by Piper

Aircraft; and LA-235-99501 produced by LAVIA S.A.:

38 gallons at (+63) (one fuselage tank)

S/N 25-7405573 through 25-8156024:

36 gallons at (+102) (two wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 12 quarts at (+30) (91/4 quarts usable)

See NOTE 1 for data on system oil.

Control Surface Movements Wing Flaps Down 57°

Aileron Up 23° Down 23° Elevator Up 28° Down 15° Rudder Right 25° Left 25°

<u>Manufacturer Serial Numbers</u> 25-02, 25-2000 through 25-5521, and 25-7305522 through 25-8156024 produced by

Piper Aircraft; LA-235-99501 produced by LAVIA S.A.

See NOTE 7 for airworthiness certification eligibility in the United States.

III. - Model PA-25-260, 1 PCLM (Restricted Category Only), Approved April 19, 1967.

Engine Lycoming O-540-G1A5 or O-540-G2A5 with carburetor setting #10-4404-1

<u>Fuel</u> 100/130 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (260 hp)

Propeller and Propeller Limits 1. McCauley 1A200-FA

Static r.p.m. at maximum permissible throttle setting:

Not over 2425 r.p.m., not under 2325 r.p.m.

No additional tolerance permitted

Diameter: Not over 84 inches, not under 82.3 inches Spinner required: Piper Drawing No. 64336

2. Hartzell constant speed model HC-C2YK-1()/8477-0

(Eligible on O-540-G1A5 engine only):

Pitch setting at 30" station: High 32.0°, Low 11.8° Diameter: Not over 84.0 inches, not under 83.0 inches

Governor Assembly: Hartzell F-4-4 ()

Spinner: None approved.

3. McCauley constant speed model B2D34C16-()84HF-0

(Eligible on O-540-G1A5 engine only):

Pitch setting at 30" station: High 27.0°, Low 11.0° Diameter: Not over 84.0 inches, not under 82.5 inches Governor Assembly: McCauley C290D2()/T10

Spinner: None approved.

Airspeed Limits V_{ne} Never exceed 156 mph (135 knots) (CAS) V_{no} Maximum structural cruising 124 mph (108 knots)

Center of Gravity Range (+88.4) to (+92.5) at 2900 lb.

(+85.6) to (+92.5) at 1793 lb. or less

Straight line variation between points given.

Empty Weight

Center of Gravity Range None

<u>Datum</u> 78 inches forward of leading edge of wing

<u>Leveling Means</u> Top longerons in cockpit bay

Maximum Weight 2900 lb.

<u>No. of Seats</u> 1 at (+135)

Maximum Cargo 1200 lb. at (+93)

Fuel Capacity S/N 25-4415 through 25-5521, and 25-7305522 through 25-7405572, and

LA-260-98001:

38 gallons at (+63) (one fuselage tank)

S/N 25-7405573 through 25-8156024:

36 gallons at (+102) (two wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 12 quarts at (+30) (91/4 quarts usable)

See NOTE 1 for data on system oil.

<u>Control Surface Movements</u> Wing Flaps Down 57°

Aileron Up 23° Down 23° Elevator Up 28° Down 15° Rudder Right 25° Left 25°

Manufacturer's Serial Numbers 25-4415 through 25-5521, and 25-7305522 through 25-8156024 produced by Piper

Aircraft; LA-235-99501 produced by LAVIA S.A.

See NOTE 7 for airworthiness certification eligibility in the United States.

DATA PERTINENT TO ALL MODELS

Certification Basis CAR 8.10(b), effective October 11, 1950.

Restricted Type Certificate No. 2A10 issued May 20, 1959, for the special purpose of

agricultural operations.

Date of Application for Type Certificate March 7, 1959.

Production Basis For aircraft models PA-25-235 S/N LA-235-99501 and up, and PA-25-260

S/N LA-260-98001 and up, production under type certificate only.

Equipment The basic required equipment prescribed in the applicable airworthiness regulations (see

Certification Basis) must be installed on the aircraft for certification. In addition, the

following items of equipment are required:

1. FAA Approved Airplane Flight Manual dated May 20, 1959, for S/N 25-1 and 25-2, only.

 Sprayer and/or duster equipment installation in accordance with Piper Instructions Section XVI, Report VB-1 (Piper Report 1019), on S/N 25-3 through 25-1999.

Low volume installation: 52.5 lb. at (+34.7) High volume installation: 58.0 lb. at (+37.7) Duster installation: 32.0 lb. at (+20.9)

Equipment (cont.)

3. Stall warning indicator device in accordance with Piper Drawing Nos. 61093 and 61128 on S/N 25-3 through 25-1999.

Piper Drawing Nos. 64031 and 64253 on S/N 25-02, 25-2000 through 25-4171; Piper Drawing Nos. 64031 and 64834 on S/N 25-4172 through 25-5521, and 25-7305522 through 25-8156024, LA-235-99501 and up, LA-260-98001 and up.

- Hopper installation per Piper Drawing No. 64211 and either sprayer installation per Piper Drawing No. 64152, or duster installation per Piper Drawing No. 64303 for S/N 25-02, 25-2000 through 25-2985.
- Hopper installation per Piper Drawing No. 64511 and either sprayer installation per Piper Drawing No. 64586, or Duster installation per Piper Drawing No. 64599 for S/N 25-2986 through 25-5521, and 25-7305522 through 25-8156024, LA-235-98501 and up, LA-260-98001 and up.

NOTE 1 Current weight and balance report including list of equipment included in certificated empty weight and loading instructions when necessary, must be provided for each aircraft at time of original certification.

Fuel

Oil

The certificated empty weight and the corresponding center of gravity locations must include undrainable system oil (not included in oil capacity) and unusable fuel as noted below:

Model PA-25:	Fuel	14 lb.	at	(-23)
	Oil	3.2 lb.	at	(-47)
Model PA-25-235, S/N 25-02,				
25-2000 through 25-3384:	Fuel	18 lb.	at	(+55)
	Oil	5.2 lb.	at	(+30)
Model PA-25-235, S/N 25-3385 through 25-5521, and 25-7305522 through 25-7405572,				
LA-235-98501 and up:	Fuel	12 lb.	at	(+55)
	Oil	5.2 lb.	at	(+30)
Model PA-25-260, S/N 25-4415 through 25-5521, and 25-7305522 through 25-7405572				
LA-260-99001 and up:	Fuel	12 lb.	at	(+55)
	Oil	5.2 lb.	at	(+30)
Models PA-25-235 and PA-25-260, S/N 25-7405573 through				

15 lb.

5.2 lb.

at

(+110)

(+30)

NOTE 2 The following placards must be displayed:

25-8156024:

(a) In front and in clear view of the pilot:

(1) On Model PA-25, S/N 25-1 through 25-1999:

"THIS AIRPLANE MUST BE OPERATED IN THE NORMAL CATEGORY IN

COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF
PLACARDS, MARKINGS, AND MANUAL. ACROBATIC MANEUVERS

(INCLUDING SPINS) PROHIBITED. FOR RESTRICTED CATEGORY OPERATION,
REFER TO ADDITIONAL LIMITATIONS."

NOTE 2(a) (cont.)

- (2) On Model PA-25-235, S/N 25-02, 25-2000 through 25-2761:

 "THIS AIRPLANE MUST BE OPERATED IN THE RESTRICTED CATEGORY IN COMPLIANCE WITH OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS AND MARKINGS. ACROBATIC MANEUVERS (INCLUDING SPINS) PROHIBITED."
- (3) On Model PA-25-235, S/N 25-2762 through 25-4414; and on Models PA-25-235 and PA-25-260, S/N 25-4415 through 25-5521, and 25-7305522 through 25-8156024: "THIS AIRPLANE MUST BE OPERATED IN THE RESTRICTED CATEGORY IN COMPLIANCE WITH OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS AND MARKINGS. ACROBATIC MANEUVERS (INCLUDING SPINS) PROHIBITED. FOR NORMAL CATEGORY OPERATION, REFER TO FLIGHT MANUAL."
- (b) In cabin accessible to pilot for all Restricted Category PA-25, PA-25-235 and PA-25-260, display "OPERATING LIMITATIONS - RESTRICTED CATEGORY ONLY" placard in accordance with Piper Drawing No. 61631.
- (c) On hopper: Model PA-25: "800 lb. maximum"

 Model PA-25-235: "1200 lb. maximum"

 Model PA-25-260: "1200 lb. maximum"
- (d) Models PA-25-235 and PA-25-260 On checklist above instrument panel: "WINDOWS CLOSED"
- (e) Models PA-25-235, S/N 25-2762 through 25-4414; and PA-25-235 or PA-25-260,
 S/N 25-4415 through 25-5521, and 25-7305522 through 25-8156024; Models PA-25-260 S/N LA-260-98001 and up On the instrument panel in full view of the pilot:

"ROUGH AIR OR MANEUVERING SPEED 120 M.P.H."

- (f) On safety panel above instrument panel in full view of the pilot:
 - (1) Model PA-25-235, S/N 25-02, 25-2000 through 25-3384

"UNUSABLE FUEL 3 GALLONS. WHEN FUEL QUANTITY INDICATOR READS ZERO, FUEL REMAINING IN TANK CANNOT BE USED SAFELY IN FLIGHT."

(2) Models PA-25-235 S/N 25-3385 through 25-4414 and LA-235-99501 and up; and PA-25-235 or PA-25-260, S/N 25-4415 through 25-5521, and 25-7305522 through 25-7405572; and Model PA-25-260S/N LA-260-98001 and up:

"UNUSABLE FUEL 2 GALLONS. WHEN FUEL QUANTITY INDICATOR READS ZERO, FUEL REMAINING IN TANK CANNOT BE USED SAFELY IN FLIGHT."

- (3) Model PA-25-235 or PA-25-260, S/N 25-7405573 through 25-8156024: "UNUSABLE FUEL 2.5 GALLONS. WHEN FUEL QUANTITY INDICATOR READS ZERO, FUEL REMAINING IN TANK CANNOT BE USED SAFELY IN FLIGHT."
- (g) On Models PA-25-235 and PA-25-260 On instrument panel in clear view of the pilot: "NO SMOKING"

- (h) On Models PA-25-235, S/N 25-2762 through 25-4414 and LA-235-99501 and up; and PA-25-235 or PA-25-260, S/N 25-4415 through 25-5521, and 25-7305522 through 25-8156024; and Model PA25-260 S/N LA-260-98001 and up In front and in clear view of the pilot:
 "STALL WARNING SYSTEM INOPERATIVE WHEN MASTER SWITCH IS OFF."
- On Models PA-25-235 and PA-25-260, S/N 25-7405573 through 25-8156024 Above and near the fuel quantity gauge:

"FUEL CAPACITY 36 GALLONS"

(j) On Model PA-25-235 and PA-25-260, S/N 25-7405573 through 25-8156024 - Adjacent to low fuel level light on auxiliary instrument panel:

"LOW FUEL WARNING"

- NOTE 3 The Model PA-25, S/N 25-2 through 25-1999 (Restricted Category) is the same as the Normal Category PA-25 except for installation of spray or dust dispensing equipment. Conversion from sprayer or duster configuration may be accomplished using Piper Instructions Section XVI of Report 1019. When operating in the Normal Category, FAA Type Certificate Data Sheet No. 2A8 will apply.
- NOTE 4 In addition to the operating limitations in this data sheet, area economic, passenger, and other appropriate operating limitations in accordance with CAR 8 shall be shown on placards or listing accessible to the pilot.
- NOTE 5 (a)Model PA-25-235, S/N 25-2000 through 25-2761 are eligible for Multiple Airworthiness Certification when all placards are revised to the configuration of S/N 25-2762 through 25-25-5521, and 25-7305522 through 25-8156024. Airplane Flight Manual listed under equipment Item 1(d) of Type Certificate Data Sheet No. 2A8 required.

(b)Model PA-25-235, S/N 25-2762 through 25-2985 are eligible for Multiple Airworthiness Certification in the Restricted Category and Normal Category in accordance with CAR 8.21 and Conversion Instructions, Section XVI of Piper Report VB-7, Revision No. 2, dated October 5, 1964. When operating in the Restricted Category, Type Certificate Data Sheet No. 2A10 shall apply. When operating in the Normal Category, Type Certificate Data Sheet No. 2A8 shall apply.

(c)Model PA-25-235, S/N 25-2986 through 25-4414; and Model PA-25-235 or PA-25-260, S/N 25-4415 through 25-5521, and 25-7305522 through 25-8156024; and Model PA25-260 S/N LA-260-98001 and up, are eligible for Multiple Airworthiness Certification in the Restricted Category and Normal Category in accordance with CAR 8.21 and Conversion Instructions, Section III of Piper Report VB-42, Revision No. 6, dated February 22, 1967. When operating in the Restricted Category, Type Certificate Data Sheet No. 2A10 shall apply. When operating in the Normal Category, Type Certificate Data Sheet No. 2A8 shall apply.

NOTE 6 Airplane Climb Performance - Sea Level, Standard Day:

Configuration	Weight	<u>Propeller</u>	Rate of Climb
"Duster"	2900 lb.	1P235-AFA	500 f.p.m.
		1A200-FA	440 f.p.m.

NOTE 7 The following S/N are not eligible for Airworthiness Certification in the United States:

25-4894, 25-5027, 25-5030, 25-5033, 25-5057, 25-5066, 25-5069, 25-5072, 25-5075, 25-5097, 25-5100, 25-5102, 25-5106, 25-5269, 25-5271, 25-5273, 25-5275, 25-5284 through 25-5293, 25-5315, 25-5316, 25-5318, 25-5320, 25-5454, 25-5455, 25-5456, 25-5457,

25-7305528, 25-7305530, 25-7305532,

25-7405591, 25-7405596, 25-7405613, 25-7405620, 25-7405631, 25-7405642, 25-7405652, 25-7405658, 25-7405662, 25-7405672, 25-7405679, 25-7405686, 25-7405690, 25-7405692, 25-7405694, 25-7405696, 25-7405698, 25-7405701, 25-7405704, 25-7405705, 25-7405706, 25-7405708, 25-7405714, 25-7405716,

- 25-7556030, 25-7556035, 25-7556040, 25-7556045, 25-7556050, 25-7556057, 25-7556062, 25-7556065, 25-7556067, 25-7556069, 25-7556067, 25-7556069, 25-7556069, 25-7556071, 25-7556073, 25-7556075, 25-7556077, 25-7556080, 25-7556090, 25-7556095, 25-7556100, 25-7556105, 25-7556110, 25-7556115, 25-7556120, 25-7556125, 25-7556135, 25-7556140, 25-7556145, 25-7556150, 25-7556153, 25-7556159, 25-7556162, 25-7556166, 25-7556226, 25-7556227, 25-7556228, 25-7556229, 25-7556230, 25-7556231, 25-7556232, 25-7556233, 25-7656078, 25-7656091,
- 25-7756072 through 25-7756081, 25-7756087 through 25-7756095,
- 25-7856001 through 25-7856004, 25-7856006, 25-7856008, 25-7856010, 25-7856012, 25-7856016, 25-7856018, 25-7856020, 25-7856022, 25-7856032, 25-7856034, 25-7856036, 25-7856038, 25-7856043, 25-7856045, 25-7856047, 25-7856049, 25-7856055, 25-7856057, 25-7856063, 25-7856065, 25-7856066, 25-7856067, 25-7856069, 25-7856071,
- 25-7956004, 25-7956006, 25-7956009 through 25-7956012, 25-7956014, 25-7956016, 25-7956019, 25-7956020, 25-7956022, 25-7956025, 25-7956027, 25-7956029, 25-7956031, 25-7956033, 25-7956036, 25-7956038, 25-7956041, 25-7956042,
- 25-8056004, 25-8056005, 25-8056008, 25-8056009, 25-8056011, 25-8056013, 25-8056016, 25-8056018, 25-8056021, 25-8056022, 25-8056026, 25-8056028, 25-8056041, 25-8056043, 25-8056046, and 25-8056048.

NOTE 8: Import Requirements:

(a) A United States airworthiness certificate may be issued on the basis of Argentina Certificate of Airworthiness for Export signed by a representative of Direción Nacional de Aeronavegabilidad containing the following statement: "The aircraft conforms to its U. S. type design (Type Certificate No 2A10) and is in a condition for safe operation."

(b) The U. S. airworthiness certification basis for aircraft type certificated under 14 CFR Part 21 section 21.29 and exported by the country of manufacture is section 21.183(c) or 21.185(c).

(c)The U. S. airworthiness certification basis for aircraft type certificated under 14 CFR Part 21 section 21.29 and exported from countries other than the country of manufacture (e.g., third part country) is section 21.183(d) or 21.185(b).

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